

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/017,444	THOMAS ET AL.
	Examiner Lawrence B. Williams	Art Unit 2611

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed on 14 July 2006.
2.  The allowed claim(s) is/are 3.5,10,15-16,18,20-21,26,31-32, 34-39, renumbered as 1,2,3,4-5,6,7-8,9,10-11,12-17, respectively.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1. <input type="checkbox"/> Notice of References Cited (PTO-892)	5. <input type="checkbox"/> Notice of Informal Patent Application
2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____.
3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	7. <input type="checkbox"/> Examiner's Amendment/Comment
4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance
	9. <input type="checkbox"/> Other _____.

## **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: The instant application discloses a transmitter and method of operation thereof. A search of prior art records has failed to teach or suggest alone or in combination a method of operating a transmitter comprising:

“(1) being provided an average over at least one realization of a channel vector wherein elements of the channel vector are random variables; (2) determining a mean square error for each stream weight of a plurality of stream weights based on the average over at least one realization of a channel vector; (3) determining a first stream weight of the plurality of stream weights having the largest mean square error; (4) increasing a power of the first stream weight; (5) decreasing a power of each stream weight of the plurality of stream weights excluding the first stream weight; and repeating steps (2) through (5) when all of the mean square errors of the plurality of stream weights are unequal” as disclosed in claim 3.

“(1) initializing a first stream weight; (2) establishing a resolution value, an initial value of the increment, and a statistical nature of the channel vector; (3) determining a weighting of a plurality of stream weights excluding the first stream weight; (4) determining a power variable; (5) increasing the first stream weight by a product of the power variable and an increment; (6) dividing the increment by a factor subsequent to increasing the first stream weight by a product of the power variable and the increment; (7) determining a weighting of a plurality of stream weights excluding the first stream weight; and repeating steps 4-7 when the increment is greater than the resolution value” as disclosed in claim 10.

“weighting data streams by unequal power weightings to create a plurality of weighted data streams, wherein the unequal power weightings for each data stream is based on a noise power and an average over at least one realization of a channel vector, wherein elements of the channel vector are random variables; and transmitting the plurality of weighted data streams to a receiving unit” as disclosed in claim 31.

Nor does the prior art teach or suggest a transmitter alone or in combination comprising: “a module operable to determine a first unequal weighting of a plurality of stream weights; means for transmitting a plurality of transmission signals as a function of a plurality of data streams and the first unequal weighting of the plurality of stream weights; wherein, to determine the first unequal weighting of the plurality of stream weights, said module is further operable to: (1) determine a mean square error for each stream weight of a plurality of stream weights; (2) determine a first stream weight of the plurality of stream weights having the largest mean square error; (3) increase a power of the first stream weight; and (4) decrease a power of each stream weight of the plurality of stream weights excluding the first stream weight and repeat steps (1) through (4) when all of the mean square errors of the plurality of stream weights are unequal” as disclosed in claim 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

## CONCLUSION

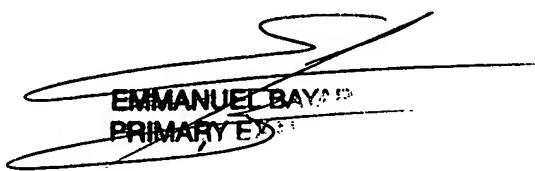
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw  
September 12, 2006

  
EMMANUEL BAYA  
PRIMARY EXP